

[Inline Fuel Cooling of the Carbon Canister]

Abstract of Disclosure

A fuel vapor recovery system for a vehicle having a fuel tank coupled to a fuel filler tube. The fuel vapor recovery system includes a carbon canister disposed in the fuel filler tube. Thus, the relatively cool stored fuel passes through the carbon canister disposed in the filler tube before entering the fuel tank. A primary advantage of the present invention is that the problem of the temperature of the carbon rising during vehicle fuelling due to displaced fuel vapors desorbing within the canister is mitigated by heat transfer between the cool fuel passing over the filler tube disposed carbon canister and the entering relatively cool fuel. This heat transfer results in a cooling of the carbon in the canister. Consequently, the carbon in the carbon canister remains effective in desorbing fuel vapors. The filler tube has an inlet for receiving fuel from a supply external to the vehicle. The filler tube is disposed to directing such received fuel to the fuel tank. The carbon canister is disposed within said fuel filler tube to enable the received fuel to contact the canister as such received fuel passes from the inlet, by and in contact with the canister, to the fuel tank.

Figures